

## CALL FOR GRANT APPLICATIONS (AE2023-0464)

INESC TEC is now accepting grant applications to award 1 Post Doctoral Research Grant (BIPD) within the scope of the ATE funded by IAPMEI with reference 56 Co-financed by Component 5 - Capitalization and Business Innovation, integrated in the Resilience Dimension of the Recovery and Resilience Plan within the scope of the Recovery and Resilience Mechanism (MRR) of the European Union (EU), framed in the Next Generation EU, for the period 2021 - 2026.

### 1. GRANT DESCRIPTION

**Type of grant:** Post Doctoral Research Grant (BIPD)

**General scientific area:** ENGINEERING

**Scientific subarea:** Electrical engineering

**Area of Work:** Power Systems-Microgrids operation and planning

**Grant duration:** 12 months, starting on 2024-01-18, with the possibility of being renewed until the end of the project.

**Scientific advisor:** Filipe Joel Soares

**Workplace:** INESC TEC, Porto, Portugal

**Maintenance stipend:** € 1741,00, [according to the table of monthly maintenance stipend for FCT grants](#), paid via bank transfer. Grant holders may be awarded potential supplements, according to a quarterly evaluation process (Articles 19, 21 and 22 of the [Regulations for Grants of INESC TEC](#) and Annex II), up to a maximum limit of 50% of the monthly maintenance stipend.

INESC TEC supports costs with registration, enrolment or tuition fees, during the grant duration, under the terms established in the internal document: "[Payment of Tuition fees to grant holders](#)".

The grant holder will benefit from health insurance, supported by INESC TEC.

### 2. OBJECTIVES:

Development and management of databases. API development for data acquisition/storage, ensuring interoperability between platforms. Optimization of multi-energy systems. Front-end development.

### 3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

Characterize the state of the art in the field of multi-energy microgrids taking into account different use cases; Contribute to the specification, design, development and implementation of tools in the energy area, involving microgrids operation and planning, multi-energy resources and forecasting of load and renewable production; Specify the exchange of information between systems and develop APIs to enable interaction between new tools and existing platforms; Participate in the elaboration of use cases and services related to the optimization of microgrids.

#### 4. REQUIRED PROFILE:

##### Admission requirements:

PhD in Electric Engineering - Power Systems

The PhD degree must have been obtained within the three years prior to the date of submission of the application and the research work leading to the award must have been carried out at a host entity other than INESC TEC.

##### Preference factors:

Experience in database development and management. Experience in developing APIs. Experience in front-end development. Fluency in English and Portuguese (written and spoken).

##### Minimum requirements:

Knowledge about data bases and APIs. Programming skills (Python, C, C++, etc.). Basic knowledge about optimization methods.

#### 5. EVALUATION OF APPLICATIONS AND SELECTION PROCESS:

**Selection criteria and corresponding valuation:** the first phase comprises the Academic Evaluation (AC), based on the criteria referred to in Article 12 of the [Regulations for Grants of INESC TEC](#), while the second phase comprehends the Individual Interview (EI). All factors are evaluated on a scale of 0 to 100, taking into account the applicants' merit, suitability and conformity with the preference factors.

The weight of the AC factors are as follows: Academic Qualifications (FA, 50%), Scientific Publications (PC, 20%), Experience (EX, 20%) and Motivation Letter (CM, 10%).

Candidates who score less than 50 points in the AC average will be considered excluded on absolute merit. The top five candidates approved on absolute merit will be qualified for the individual interview. The Final Grade (CF) is obtained by the weighted average of AC (70%) and EI (30%).

##### The Selection Jury is composed of the following members:

President of the Jury: Filipe Joel Soares

Full member: Carlos Moreira

Full member: Leonel Magalhães Carvalho

Substitute member: Ricardo Jorge Bessa

**Release of results and prior hearing:** the results of the selection process, as well as the terms and procedures for prior hearing, will be released to the applicants by email, under the terms referred to in Article 13 of the Regulations for Studentships and Fellowships of INESC TEC.

#### 6. FORMALISATION OF APPLICATIONS:

##### Application Documents:

1. Motivation letter;
2. Curriculum Vitae (must include the list of previous fellowships, their type, beginning and end dates, funding entities and host institutions);
3. Certificate or diploma degree;
4. Documental evidence to support the country of residence, residence permit or other legally equivalent document, in cases where the applicant is a foreigner or non-resident in Portugal - valid until the beginning of the grant.
5. Other supporting documents relevant to the final assessment.

Failure to deliver the required documents within the 90-day period after the date of the notice of the conditional awarding of the grant implies its cancellation.

**Application period:** From 2023-11-30 to 2023-12-31

**Submission of applications:** the application will be formalised by submitting the form available in the *Work With Us* section of INESC TEC website.

## 7. BINDING LEGISLATION AND REGULATION

The hiring process shall comply with the current legislation regarding the Research Grant Holder Statute, approved by Law no. 40/2004 of August 18, in its current wording, as well as by the [Regulations for Grants of INESC TEC](#) and for [FCT Grants Regulation in force](#).

For more information, please check the [Regulations for Grants of INESC TEC](#) and relevant annexes at [www.inesctec.pt/bolsas](http://www.inesctec.pt/bolsas)

